



# Executive Summary

Mecklenburg County is taking this opportunity to reflect on the past 20 years. Since the first State of the Environment Report (SOER) in 1987, we have made significant progress toward addressing environmental issues, and we have identified issues that continue to need work. Technology has also enabled us to identify new environmental issues, as well as creating solutions to address existing ones.

The 2008 SOER reflection is based on the same four goals of the 1987. The hope is that you, the reader, will find this to be a valuable synopsis of environmental issues over the past 20 years. We have stretched ourselves honestly to evaluate both progress and regression from the original 1987 report, and hope that you will join with us to support the findings and recommendations herein as they are the compilation of today's knowledge and yesterday's experience.

In 1987 Mecklenburg County compiled the first State of the Environment Report. The purpose of the 1987 SOER was:

- To describe Mecklenburg County's current environmental status for the public and the Board of County Commissioners,
- To highlight the major environmental issues facing us,
- To recommend direction concerning those issues, and
- To give the County objective measures to evaluate progress toward a clean healthy environment.

## Then and Now

The sections (Air, Water, Waste, and Land) of the 2008 SOER begin with a "Then and Now" comparison of environmental data collected in 1987 and in 2007. The chapter articles follow "Then and Now," as each topic has a wealth of clarifying information.



# Major Conclusions

## 1987

**Air Quality:** Ozone was worsening as carbon monoxide was improving

**Waste:** Landfill space, demolition waste, illegal dumping, and disposal of infectious waste were all significant concerns. Both hazardous and radioactive wastes were considered in good shape.

**Water:** Surface water quality in the lakes was considered quite good. Rural streams were classified with good water quality, suburban streams with fair water quality, and urban streams with poor water quality. Groundwater quality was an unknown due to an acknowledged lack of information.

**Land Use:** Although land use was acknowledged to have a role in environmental conditions, it was classified as an indefinable quality of life factor and was not specifically addressed.

## 2007

**Air Quality:** Ambient air quality has improved overall. Ozone concentrations are not as high and days over national standards are not many; however, 20 years later we violate the new national standard, and are designated as non-attainment for ozone. The particulate matter standard is barely being met.

**Waste:** Mecklenburg County's recycling and waste management infrastructure is among the most comprehensive in the state. There is ample waste disposal capacity to serve the community's needs for the next 20 years, if managed properly.

**Water:** Lake water quality is showing slight improvement since 1987. Remaining rural and suburban streams are partially supporting their designated use while urban streams are impaired or partially supporting their use. Groundwater data is now available and indicates a dramatic increase in the number of groundwater contamination sites over the last 20 years.

**Land Use:** Current population has increased more than 81 percent since 1987. Land use decisions in 2007 are beginning to incorporate consideration for the environment as an increase in knowledge has allowed for clearer connection between these two complicated topics. Greenway and natural heritage programs now exist; however, a deficit of parklands exists.

## Environmental Assessment Factors - Then and Now

Factor	1987	2007
Population	473,760	857,379
Number of Vehicle Miles Traveled per day	11,000,000	29,950,013
Days Over the Ambient Air Quality Standard:		
Ozone: 8-hour	36	19
Carbon Monoxide	0	0
Particulate Matter	0	4
Violations by permitted air quality sources	87	107
Municipal waste disposal capacity (years)	3	>25
Groundwater Violations	60	1130
Population dependant on groundwater (%)	22	20.5
Lake Water Quality Index Rating (Lake Norman, Mountain Island Lake, and Lake Wylie combined)	75.23 (Good-Excellent)	77.6 (Good-Excellent)
Surface Water Fecal Coliform Index Rating	51.8 (Impaired)	69.5 (Impaired)
Greenways (Number)	0	11
Biologically Important Natural Areas Protected	0	15 (56% of identified areas)

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# Emerging Themes

## 1987

**Regionalism:** Environment knows no boundaries; therefore, effective environmental protection and preservation should be promoted and encouraged on both regional and local levels.

**Funding:** Funding is required to continue environmental preservation and enhancement under the pressure of growth.

**Education:** Everyone supports a clean environment, but very few are educated about the facts; therefore, we have a need for education about our environment issues.

**Options/Authority:** The County has relatively few tools to react quickly to the changing environment. Mecklenburg County's size and growth results in unique problems apart from the rest of North Carolina; therefore, more local control to create acceptable levels of environmental protection is desired.



## 2007

Development of this report revealed a clearer understanding of the themes from 20 years ago as well as the addition of two new common themes: Green Development and Relationship Among Disciplines.

**Regionalism:** Natural resources know no man-made or political boundaries, nor do wildlife. The rivers and creeks found in Mecklenburg County are not solely contained within the County. Air quality issues and their solutions are dependent on the actions of surrounding Counties and states. The need to address environmental issues on a regional basis has been recognized and efforts are being made to address it.

**Funding:** Pressures of population growth on our natural resources require funding of land preservation and enhancement. User fees and state revenue sources will continue to be the primary mechanisms for ensuring that environmental issues are properly managed.

**Education:** Public awareness and participation in residential recycling and the protection and restoration of water quality is on the rise. Expansion of educational efforts through school programs and resources that encourage students to be proactive in the protection of the environment should be supported. Continue to raise awareness through volunteer programs, educational presentations, and media campaigns so that residents adopt behaviors that protect our natural resources.

**Options/Authority:** Mecklenburg County has been granted authority by the state and federal agencies to administer regulations regarding: Air Pollution, Surface Water Pollution Control, Floodplain Development, Groundwater Wells, and Business Recycling. Local control allows for more comprehensive solutions and more rapid reaction to local environmental issues, and should continue to be explored for issues not adequately funded or addressed by state or federal agencies.

**Green Development:** North Carolina State legislation (SL2007-546) states: "The main objectives of sustainable, energy efficient design are to avoid

resource depletion of energy, water, and raw materials; prevent environmental degradation caused by facilities and infrastructure throughout their life cycle; and create buildings that are livable, comfortable, safe, and productive.” The County recognizes that green development should be considered and promoted to reduce waste and increase energy efficiency through informed site selection, design, construction, operation, and maintenance of facilities. The County should be an active participant in encouraging and offering incentives for green development.

**Relationship among Disciplines:** County staff are continually improving the coordination of environmental programs and activities that affect natural resources. The effect of our energy use on air quality, water quality, waste management and land use typifies the complex nature of identifying and addressing environmental issues. The County should develop actions that identify, communicate, and create solutions sensitive to the relationships between environmental issues.

## Mecklenburg County Annual Survey by the Urban Institute at UNC-C Importance of the Environment

Category and Percent Responding	1991	1993	1995	1997	1999	2001	2003	2005	2007
<b>① Importance of Protecting the Environment</b>									
Very Important	86.3	82.0	84.0	81.8	86.7	87.3	80.9	77.1	88.2
Some Importance	12.7	16.7	14.7	17.6	12.4	11.5	17.8	21.9	11.0
Not Important	1.0	1.3	1.3	0.6	0.9	1.2	1.3	1.1	0.8
<b>② Believe the environment receives correct amount of attention</b>									
Too Much Attention	1.7	5.5	3.6	3.6	4.5	3.5	3.5	4.4	3.1
Right Amount of Attention	23.8	31.5	35.1	34.3	33.9	47.7	35.2	33.4	33.0
Not Enough Attention	74.4	63.0	61.3	62.1	61.6	48.8	61.3	62.2	63.9
<b>③ Would pay higher taxes to protect the environment</b>									
Yes	73.0	62.7	64.9	59.1	61.1	40.1	49.4	50.8	52.9
No	27.0	37.3	35.1	32.5	38.9	59.9	50.6	49.2	47.1
<b>④ Level of government best for environmental regulations</b>									
Local	41.2	55.2	43.3	46.9	17.8	56.6	40.1	39.8	50.9
State	16.4	21.5	30.2	26.7	8.5	19.5	26.7	29.4	23.7
Federal	18.4	18.5	23.5	17.5	4.4	15.5	19.4	18.3	16.5
Combination	22.7	4.9	3.1	8.9	69.4*	8.5	13.8	12.5	8.9
Other	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

\*1999 was the only survey year in which “combination” was offered as a response choice. All other survey years “combination” was volunteered as a choice by the respondents.

Source: UNCC Urban Institute Annual Surveys, October 1991, 1993, 1995, 1997, 1999, 2001, 2003, 2005, and 2007. Sample size 850. With 98% certainty, responses are within +/- 4% of the responses one would receive from a survey of the entire adult population of Mecklenburg County.